CALIFORNIA STATE DEPARTMENT OF PUBLIC HEALTH
GILES S. PORTER, M.D., Director

Weekly Bulletin

STATE BOARD OF PUBLIC HEALTH
JOHN H. GRAVES, M.D., President EDWARD M. PALLETTE, M.D., Vice President
GEORGE E. EBRIGHT, M.D. JUNIUS B. HARRIS, M.D. WM. R. P. CLARK, M.D.
GIFFORD L. SOBEY, M.D. GILES S. PORTER, M.D.

Entered as second-class matter February 21, 1922, at the post office at Sacramento, California, under the Act of August 24, 1912.
Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917.

Vol. XI, No. 36 October 8, 1932 GUY P. JONES EDITOR

*Diphtheria Control Measures**

By W. H. KELLOGG, M.D., Chief, Bureau of Laboratories

(Continued from last issue)

Few communities can boast that their child population is immunized to the extent that the epidemic prevalence of the disease is impossible. This can be done, and such a boast probably would hold with only half the children immunized. That less than this number have been treated in most communities is a commentary on the public health sense of the people, and graphically illustrates the fact that scientific knowledge is far in advance of its practical application. Until the happy time arrives when mothers of babies do not have to be implored by health officers and physicians to take the simple step necessary to protect them, the health officer will be faced every now and then with the occurrence of a case or two in school with perhaps a death or two somewhere in his district.

The first thought that occurs when diphtheria appears, and rather naturally so, is to search for a carrier in the school. Quite often this is the correct line of reasoning, but it is not beyond the bounds of possibility that the first case in a school precedes instead of follows any carriers that may subsequently be found. The source in this case is outside the school, but from then on the associates of this first case must be looked on with suspicion.

Carriers in a school whether they are the source or are secondary to a known case are very likely to be among the immediate associates of the case; that is, they are seated in the immediate vicinity or are the particular associates in play of the child that has contracted diphtheria. It follows, therefore, that it is seldom necessary, and is often a waste of effort, time, and material, to culture an entire school in the search for carriers. A good rule is first to culture the close associates, and, if carriers are found, extend the search to the entire class, and, if still more are found, to the entire room. If still others are located, the search may be extended to the whole building, stopping, however, with the group in which no carriers are found. As mentioned earlier in this article, carriers found in the course of such an investigation are likely to be nonvirulent, and, therefore, not quarantinable, whereas the contacts in the house of a patient will usually be found virulent. Virulence tests are, therefore, in order in every school survey, and the State laboratory makes it a practice to apply the test to all positive cultures from such a source. The positive reports on the cultures are, however, transmitted immediately so that the children may be excluded pending receipt of the virulence report. All cases clinically diagnosed as diphtheria, and all virulent carriers, are either quarantined in their homes or removed to an isolation hospital.

When culturing schools in the search for carriers the health officer may encounter pupils whose parents have objections, conscientious or otherwise, to the

* This is the fourth article in a series upon this subject by Dr. Kellogg.

taking of cultures. What shall the health officer do in this case? The State board regulations are silent on this point, but it is the opinion of the writer that the health officer has ample authority under the general powers of his office to exclude from the schools any pupils that he has reason to suspect may be a menace to the health of the other pupils. The length of such exclusion will be until the conditions are met or for such arbitrary period as the health officer in reason considers sufficient or until a court order secured by the parents readmits them, in which case the responsibility for the consequences rests with the magistrate and not with the health officer who has done his duty.

The regulations of the State Board of Health stripped of all ambiguities and boiled down provide as follows:

(1) Cases or suspected cases are to be reported immediately to the local health officer either by mail or phone as may be permitted locally.

(2) The health officer is empowered to require the submission of swabs for diagnosis from all cases or suspected cases to be examined in the local health department laboratory or that of the State (no other laboratories are authorized to receive diphtheria specimens).

(3) Physicians in attendance shall take the well-known precautions against spreading the infection by fomites (it is specifically recommended that he wear a washable outer garment, and wash his hands on leaving the room).

(4) The physician is required to provide the family with the salient facts regarding the spread of diphtheria (the health officer should make this his duty, as it will be often overlooked by the doctor).

(5) A health officer is expected to make an epidemiological investigation covering the presence of diphtheria in his community. This includes, besides the search for carriers in schools already referred to, the ferreting out of the relationship of one case to another; literally retracing the steps of the infection in its trail through the community. This means the tabulation of cases and the listing of all associates of these cases. Actual visits have to be made to the homes of these associates and a search made for mild and unrecognized cases and swabs taken for their identification, as well as swabs from the perfectly well persons in this group for possible carriers. A spot map of the territory showing the location of known cases is an aid to the investigation of any disease. A full-time health officer in a small community may be able to do this work himself; if so, well and good; but as the community grows larger the necessity for the employment of nurses becomes more apparent. These nurses must, of course, be especially trained for public health work.

(6) A case found by the health officer or reported to him is *isolated* from the rest of the family or group in which he lives. The health officer defines this area of isolation which may be only a single room or may be a whole house. He places a warning notice or placard at the various entrances to the isolation area and permits no one except the physician and those directly concerned with the care of the patient to enter. Attendants may remain permanently inside or may be permitted to go outside after taking the usual precautions required of the doctor provided they do not come in contact with susceptible persons.

(7) The health officer is required, also, to establish an area of *quarantine* and affix an official quarantine sign at the outer entrance. The area of isolation and the area of quarantine may coincide or the area of quarantine may be larger. For example, it may embrace the entire yard with the sign at the front gate, the area of isolation being the house or a single room or suite of rooms in the house. Thus the health officer is given considerable latitude in his local arrangements to take care of particular situations. He could, for instance, having a case in a boarding house, establish both quarantine and isolation around the single room occupied by the patient, thus sparing the landlady the damage of having a quarantine sign on her front door excluding all her boarders. The health officer, having the responsibility for protecting the community as well as the landlady, will want to assure himself that isolation will be rigidly observed, and he will doubtless in such a case make strenuous efforts to have the patient removed to some other more favorable location for the maintenance of quarantine.

(8) In the above hypothetical case the patient having been removed, the problem of contacts presents itself. A rational procedure is to secure throat cultures from everyone in the house. Any found positive are carriers and a virulence test should be applied to those who have not been in close contact with the patient. If nonvirulent or if no positives are found, the quarantine is ended. Contacts in the immediate family of a case are more likely to be carriers, and being carriers are more likely to harbor a virulent organism, and under the rules of the State laboratory they will not be eligible for a virulence test until sixty days have elapsed. Cultures from contacts must be examined in an approved laboratory, and the health officer in his discretion may release contacts from quarantine without laboratory examination if twenty-one days have elapsed from the last exposure. If it is urgent that any contact leave the jurisdiction of the health officer before the expiration of the twenty-one

days and without laboratory test to see if he may be a carrier, he may do so, but the local health officer must notify the State Department of Health of the names and destinations of all such persons. Wage earners are permitted to continue with their work while in quarantine unless their occupation involves the handling of milk or brings them into contact with children. They must also avoid contact with any considerable number of people.

(9) Quarantine and isolation are both released when the physician reports clinical recovery of the patient and following which two consecutive negative swabs from both nose and throat taken not closer together than 48 hours and not further apart than one week are obtained, not only from the patient but from all persons in the area. If the patient continues positive for 30 days after recovery he is classed as a carrier and the quarantine may be lifted, but the isolation must still be maintained. In the release from quarantine swabs must be taken by the health officer, but he may permit the physician to do it for him. Carriers are to be kept under isolation and reported to the State Board of Health. If two negative cultures or if negative virulence tests are obtained, they may be released; otherwise, at the end of six weeks from recovery, the facts should be reported to the State Board of Health with recommendations for the continuation of isolation or for release under restrictions.

OAKLAND HEALTH DEPARTMENT HOLDS OPEN HOUSE

Early in August, the city government of Oakland held an open house in order that the residents of that city might have an opportunity to learn how municipal governmental functions are carried on. A total of 25,000 people came to the City Hall on that day and 8000 of them visited the health department, where they learned in detail how the public health is safeguarded through communicable disease control, milk and food inspection, and all the various attributes of the modern municipal health department.

There is considerable merit in this idea and many other cities might well follow the Oakland plan in order that their residents may have better opportunities to learn the type of activities that are maintained for the purpose of safeguarding the public health.

They who have a good constitution of body can bear heat and cold, and so they who have a right constitution of soul can meet anger, grief, immoderate joy, and other passions.—Epictetus.

HIGHWAY EATING PLACES INSPECTED

The following inspections were made of highway eating places and service stations along highways of California:

Santa Cruz County

Inspected, 31—Satisfactory, 11; minor defects, 14; insanitary conditions, 3.

Reinspected, 32—Improvements made, 27; insanitary conditions, 5.

Gas service stations inspected, 7—Satisfactory conditions, 5; insanitary conditions, 2.

Auburn Road, Alta to Roseville. Inspected, 40—Satisfactory, 10; minor defects, 16; insanitary conditions, 13.

Reinspected 3, where improvements had been made.

Gas service stations inspected, 9—Conditions satisfactory, 5; minor defects, 4.

Redding-Alturas Road. Inspected, 29—Satisfactory conditions, 5; minor defects, 9; insanitary conditions, 15.

Bishop and June Lake Highway. Inspected, 7—Satisfactory conditions 4; minor defects, 2; insanitary conditions, 1.

The total number of food supply houses along highways inspected and reinspected during August was 139. In nearly all cases where unsatisfactory conditions had previously been found, improvements had been made before reinspection.

CHANGES IN HEALTH OFFICERS

Since the list of city and county health officers was published in the WEEKLY BULLETIN for August 20, 1932, the following changes have occurred:

Dr. James A. Parker of Merced has been appointed health officer of Merced County, to succeed Dr. W. C. Cotton, deceased.

Dr. C. I. Burnett of Susanville has been appointed health officer of Lassen County, to succeed Dr. Dan Coll, deceased.

Dr. Allan R. Watson has been appointed city health officer for Eureka, to succeed Dr. Lawrence A. Wing.

Dr. George P. Purlenky of Arcata has been appointed city health officer of Blue Lake, to succeed Dr. B. Cooper.

Dr. R. H. Eveleth has been appointed city health officer of Roseville, to succeed Dr. W. D. Hoffman.

W. J. Atkinson has been appointed city health officer of Beaumont, to succeed S. L. Wells.

R. H. Samuel has been appointed city health officer of Banning, to succeed J. C. Lawrence.

A person who is well will work and find enjoyment in it.

PATENT MEDICINE VENDOR IS FINED

The vendor of a so-called patent medicine which is supposed to contain radium was arrested recently through the activities of the Food and Drug Enforcement Division of the California Department of Public Health. The proprietor of this company operates a place in Los Angeles, as well as a patent medicine "show" on Market street in San Francisco. He has been selling this preparation, which was advertised as a remedy for eczema, high blood pressure, stomach disorders, kidney and bladder trouble, and all other ailments. He was convicted of mislabeling the product that he had been selling. Upon conviction, he was fined $500 and sentenced to 180 days in the Los Angeles city jail. The fine was paid and the jail sentence was suspended. With this conviction, the defendant agreed to change all of his labels and to eliminate all signs which are on display, as well as all literature pertaining to the product. It is believed that this conviction will have a decided effect in preventing the future sale of similar fraudulent products.

MANY FOOD AND DRUG CONVICTIONS

During September the Bureau of Food and Drugs of the State Department of Public Health obtained 32 convictions of food and drug violators out of 33 prosecutions. One of these violators, the seller of a fraudulent patent medicine, was fined $500, which was paid. Most of these convictions covered violations of the Egg Standardization Law and a total of nearly $2,000 in fines was assessed by the courts. Of this amount, $900 was collected and the remainder was suspended. Three violators were given jail sentences but these were suspended upon the orders of the courts involved.

MORBIDITY *

Diphtheria.

47 cases of diphtheria have been reported. Those communities reporting 10 or more cases are as follows: Los Angeles 10.

Measles.

25 cases of measles have been reported, the cases being scattered over the State.

Scarlet Fever.

81 cases of scarlet fever have been reported. Those communities reporting 10 or more cases are as follows: Los Angeles 21.

Whooping Cough.

201 cases of whooping cough have been reported. Those communities reporting 10 or more cases are as follows: Los Angeles County 37, Los Angeles 48, Sacramento 12, San Francisco 15.

Smallpox.

11 cases of smallpox have been reported, as follows: Los Angeles 10, San Bernardino County 1.

Typhoid Fever.

17 cases of typhoid fever have been reported, as follows: Fresno County 3, Kern County 1, Long Beach 2, Los Angeles 1, Madera County 1, Madera 4, San Francisco 1, Santa Barbara 1, Stanislaus County 1, Porterville 1, California 1.**

Meningitis (Epidemic).

3 cases of epidemic meningitis have been reported, as follows: Hayward 1, Fresno 1, San Francisco 1.

Poliomyelitis.

5 cases of poliomyelitis have been reported, as follows: Los Angeles 1, San Rafael 1, Orange 1, Tulare County 1, Yolo County 1.

Encephalitis (Epidemic).

One case of epidemic encephalitis from San Francisco has been reported.

Food Poisoning.

9 cases of food poisoning have been reported, as follows: Los Angeles 5, Santa Ana 4.

Undulant Fever.

2 cases of undulant fever have been reported, as follows: Humboldt County 1, Roseville 1.

Coccidioidal Granuloma.

One case of coccidioidal granuloma from Los Angeles has been reported.

Septic Sore Throat.

One case of septic sore throat from Oakland has been reported.

Relapsing Fever.

6 cases of relapsing fever from San Bernardino County have been reported.

* From reports received on October 3d and 4th for week ending October 1st.

** Cases charged to "California" represent patients ill before entering the State or those who contracted their illness traveling about the State throughout the incubation period of the disease. These cases are not chargeable to any one locality.

95865 10-32 5M

CALIFORNIA STATE PRINTING OFFICE